

A B S T R A C T

A METHOD AND APPARATUS FOR MEASURING THE PROPAGATION TIME
OF A SIGNAL, IN PARTICULAR AN ULTRASOUND SIGNAL

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A method of measuring the propagation time T_p of an ultrasound signal between two spaced-apart transducers, one constituted by an emitter and the other by a receiver, the emitter transducer being subjected to an excitation signal causing an ultrasound wave to be emitted towards the receiver transducer, said ultrasound wave causing the receiver transducer to output a receive signal, the method comprising the following steps:

15 · beginning a measurement of an intermediate propagation time T_{int} at the beginning of emitter transducer excitation;

· detecting the receive signal output by the receiver transducer and counting the oscillations in said receive signal;

20 · stopping the measurement of the intermediate propagation time T_{int} when an i^{th} oscillation is detected; and

· determining the propagation time T_p of the signal by taking the difference $T_{int} - i \times T_e$.

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